

## **ABSTRACT OF THE DISCLOSURE**

When detecting the position and gaze direction of eyes, a photo sensor (1) and light sources (2, 3) placed around a display (1) and a calculation and control unit (6) are used. One of the light sources is placed around the sensor and includes inner and outer elements (3'; 3"). When only the inner elements are illuminated, a strong bright eye effect in a captured image is obtained, this resulting in a simple detection of the pupils and thereby a safe determination of gaze direction. When only the outer elements and the outer light sources (2) are illuminated, a determination of the distance of the eye from the photo sensor is made. After it has been possible to determine the pupils in an image, in the following captured images only those areas around the pupils are evaluated where the images of the eyes are located. Which one of the eyes that is the left eye and the right eye can be determined by following the images of the eyes and evaluating the positions thereof in successively captured images.